Clean Air Act 112(r) Risk Management Program (RMP) SPCC/FRP EPCRA

CHEMICAL EMERGENCY PREVENTION & PLANNING Newsletter

May - June 2010 US EPA Region 10

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CHEMICAL EMERGENCY PREVENTION & PLANNING
Newsletter

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REPORT
CHEMICAL or OIL SPILLS
to the NATIONAL RESPONSE CENTER
1-800-424-8802

EPA instructor and facility personnel at the RMP Training

2010 RMP Training

Region 10 EPA Provides Risk Management Program Training in Richland, Washington

On March 9, 10 and 11, 2010, Region 10 provided the annual Risk Management Program training in Richland, Washington at the HAMMER Training and Education Center. The training covered the program requirements with special sessions on Management of Change, Compliance Audits and Mechanical Integrity/PHA. Approximately 140 people attended the trainings.

Facilities attended from all over Region 10, Alaska to Idaho, Washington and Oregon. Here are some comments on the training:

Most useful:

- The complete format of the RMP. It was a really good training. Excellent training on RMP.
- Walking though each program element and understanding the documentation responsibilities.
- The discussion on what the issues are that are most frequently found as deficient in the field; overall how-to's on being compliant.
- I liked the breakout sessions; I thought they were very effective. I would also encourage people to attend more than once. This is my second time & I learned some new items that I didn't hear the first time around.

TRAINING MANUAL AVAILABLE

The 2010 Risk Management Program Training Manual can be downloaded from the EPA Region 10 webpage. Find it in the training section.

Hot Work Permits

Hot work permits are required for RMP Program Level 3 and OSHA PSM regulated facilities.

The requirements are:

- Permit for each hot work operation conducted on or near a covered process.
- The permit shall document that the fire prevention and protection requirements in 29 CFR 1910.252(a) have been implemented prior to beginning the hot work operations.
- The permit shall indicate the date(s) authorized for hot work and the object(s) upon which hot work is to be performed.
- The permits shall be kept on file until completion of the hot work operations.

Seven Key Lessons to Prevent Worker Deaths During Hot Work In and Around Tanks (Chemical Safety Board Bulletin No. 2009-01-SB)

The CSB has identified over 60 fatalities since 1990 due to explosions and fires from hot work activities on tanks. Hot work is defined as "work involving burning, welding, or a similar operation that is capable of initiating fires or explosions." Hot work also includes other activities with the potential to create a source of ignition such as cutting, brazing, grinding, and soldering. Workers are potentially at risk not only in the oil and gas industry, where flammables are handled regularly, but also in many other sectors within general industry, such as food production, paper, and wastewater treatment.

Key Lessons from Recent Hot Work Accidents

1. Use Alternatives – Whenever possible, avoid hot work and consider alternative methods.

2. Analyze the Hazards – Prior to the initiation of hot work, perform a hazard assessment that identifies the scope of the work, potential hazards, and methods of hazard control.

For more information on conducting hot work hazard analyses, see OSHA's 1910.252(a)(2)(xiv)(A) and (B);

3. Monitor the Atmosphere – Conduct effective gas monitoring in the work area using a properly calibrated combustible gas detector prior to and during hot work activities, even in areas where a flammable atmosphere is not anticipated.

For more information about the recommended use of a combustible gas detector, see the Association of Energy Service Companies (AESC) safety guidance "Hot Work."

4. Test the Area – In work areas where flammable liquids and gases are stored or handled, drain and/or purge all equipment and piping before hot work is conducted. When welding on or in the vicinity of storage tanks and other containers, properly test and if necessary continu¬ously monitor all surrounding tanks or adjacent spaces (not just the tank or container being worked on) for the presence of flammables and eliminate potential sources of flammables.

5. Use Written Permits – Ensure that qualified personnel familiar with the specific site hazards review and authorize all hot work and issue permits specifically identifying the work to be conducted and the required precautions.

6. Train Thoroughly – Train personnel on hot work policies/procedures, proper use and calibration of combustible gas detectors, safety equipment, and job specific hazards and controls in a language understood by the workforce.

7. Supervise Contractors – Provide safety supervision for outside contractors conducting hot work. Inform contractors about site-specific hazards including the presence of flammable materials.

Case Study - Food Processing Facility

Region 10, February 2009

A welding contractor was killed while repairing a 1 ¼ by ½ inch crack on the bottom of a water clarifier tank at a food processing facility. The 23-foot-tall tank was used to separate dirt and debris from wastewater in a potato-washing process area. The tank was open at the top and had a metal skirt around its cone-shaped base. While the welder was working inside the tank, an explosion occurred; the internal tank structures collapsed, resulting in his death.

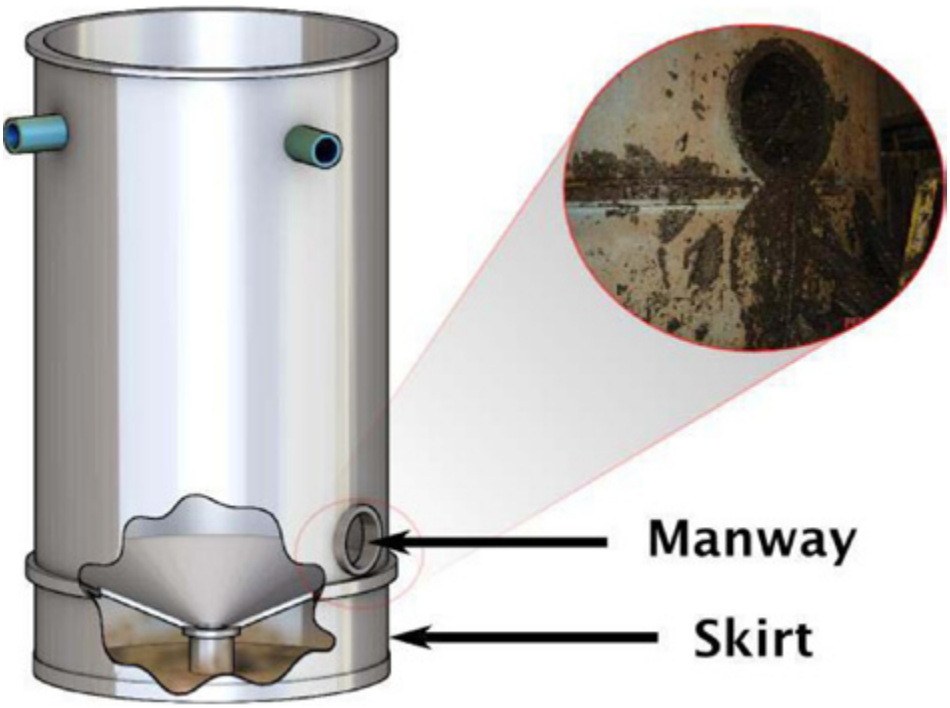
The CSB determined that approximately 14 inches of debris-laden water had leaked through the crack in the tank and accumulated in the hidden space under the tank skirting. Examination of a sample of the liquid indicated that bacterial decomposition of the organic matter likely produced flammable gas, which was then ignited by the welding activity.

In this case, facility personnel had tested for combustible gas inside the tank prior to the hot work, but only from the entrance of the tank and no flammable gas was detected. Monitoring for combustible gases was not conducted in the immediate area of the crack just prior to the initiation of the welding or in the adjacent space where flammable gas was present. Personnel were inadequately trained on the use of the specific combustible gas detector that was used and no hot work permit had been issued prior to commencing the welding.

Conclusion

Although the hazards of hot work are well established and both regulatory and good-practice guidance exist, frequent deaths and serious injuries continue to occur in hot work-related fires and explosions. The CSB has found that hot work is one of the most common causes of worker deaths among accidents it investigates. Following the seven key lessons in this bulletin – along with other good safety practices – can prevent deaths and injuries from hot work.

In particular, host companies, contractors, permit writers, welders, and other maintenance workers should effectively analyze the hazards and conduct combustible gas monitoring before and during hot work to provide advance warning of flammable atmospheres. Training on the proper use of such devices is imperative for future hot work accident prevention.



Cutout showing gas accumulation inside the tank skirt

References and Additional Information

American Petroleum Institute (API). Safe Welding, Cutting and Hot Work Practices in the Petroleum and Petrochemical Industries, Recommended Practice (RP) 2009, Washington, DC, 2002.

Environmental Protection Agency (EPA). Catastrophic Failure of Storage Tanks Caused by Vapor Explosion, Chemical Safety Alert, EPA 550-G-97-002b, May 1997.

National Fire Protection Association (NFPA). Standard for Fire Prevention During Welding, Cutting and Other Hot Work, NFPA 51B, 2009.

NFPA. Standard for the Safeguarding of Tanks and Containers for Entry, Cleaning, or Repair, NFPA 326, 2005.

Occupational Safety and Health Administration (OSHA). General Requirements for Welding, Cutting, and Brazing, 29 CFR 1910.252.

RMP*eSubmit Webinars

In March 2009, EPA provided new Web-based software called RMP*eSubmit for facilities to use for online Risk Management Plan (RMP) reporting. RMP*eSubmit allows facilities to submit, correct, and access their RMPs online, 24 hours a day, 7 days a week. EPA asks that all facilities use this new method to submit RMPs because it is easy to use and will improve data quality.

For those not familiar with RMP*eSubmit, EPA will hold a Webinar during which we will explain how to submit an RMP using the new software. There will be time for questions and answers during the Webinar.

Future Webinars for RMP*eSubmit are scheduled in June, August, and then quarterly/as needed.

Registration is required for the Webinar. We have limited lines available, so registration will be on a first come / first serve basis. Register online via http://www.epa.gov/emergencies/ Find webinar details under "Highlights".

Once registered, you will receive a confirmation e-mail with instructions on how to sign into the Webinar.

For ALASKA FACILITIES Only

RISK MANAGEMENT PROGRAM (RMP) Training

July 19, 2010

USEPA Emergency Response Warehouse

Anchorage, AK

Additional information can be found on:

EPA Region 10's RMP website

Registration information

Where Do I Go For More Information?

http://www.epa.gov/emergencies/rmp will be updated as new information becomes available.

EPA maintains numerous listservs to keep the public, state and local officials, and industry up to date, including several that pertain to emergency management. You can sign up for our list serve to receive periodic updates: https://lists.epa.gov/read/all_forums/subscribe?name=callcenter_oswer

EPA Region 10 RMP Coordinator: Javier Morales 206-553-1255

EPA Region 10 RMP Website: http://yosemite.epa.gov/R10/CLEANUP.NSF/sites/rmp

Superfund, TRI, EPCRA, RMP & Oil Information Center - The Information Center can also answer questions related to Clean Air Act section 112(r) and RMP reporting requirements.

(800) 424-9346 or TDD (800) 553-7672

(703) 412-9810 or TDD (703) 412-3323 in the Washington, D.C. area

Normal Hours of Operation:

Monday - Thursday 10:00 a.m. - 3:00 p.m. Eastern Time

Extended Hours of Operation (May, June, and July):

Monday - Friday 9:00 a.m. - 5:00 p.m. Eastern Time

Closed Federal Holidays

http://www.epa.gov/superfund/contacts/infocenter/

Risk Management Program (RMP) Reporting Center - The Reporting Center can answer questions about software or installation problems.

The RMP Reporting Center is available from 8:00 a.m. to 4:30 p.m., Monday through Friday, for questions on the Risk Management Plan program.

(703) 227-7650 (phone)

RMPRC@epa.cdx.net (e-mail)

This newsletter provides information on the EPA Risk Management Program, EPCRA, SPCC/FRP and other issues relating to Accidental Release Prevention Requirements. The information should be used as a reference tool, not as a definitive source of compliance information. Compliance regulations are published in 40 CFR Part 68 for CAA section 112(r) Risk Management Program, 40 CFR Part 355/370 for EPCRA, and 40 CFR Part 112.2 for SPCC/FRP.